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Adjustable antialias filters.

A programmable sampled data subsampling system includes a programmable antialias filter which bandlimits the information bandwidth of the signal to be subsampled in accordance with the subsampling rate. The antialias filter includes a recursive filter which scales and combines (304,306,308) input samples and delayed (310) com-

bined samples in proportions of  $K$  and  $(1-K)$  where  $K$  is a variable. The variables  $K$  are applied (314,316,318) to the recursive filter in repeating sequences of  $N$  values of  $K$  where  $N$  is the subsampling factor. Every  $N^{\text{th}}$  combined sample is extracted (312,320) and provided as the subsampled signal.

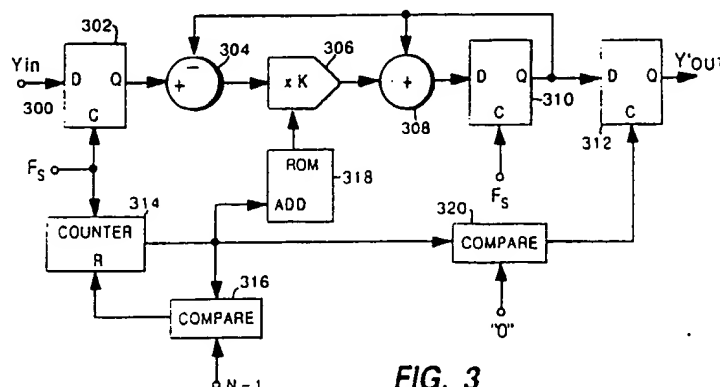


FIG. 3

EP 0 380 351 A3



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## EUROPEAN SEARCH REPORT

Application Number

EP 90 30 0818

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	1986 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS, San Jose, California, 5th - 7th May 1986, vol. 1, pages 289-294; K.R. RAO: "Digital filtering in image coding" * Page 289, left-hand column, line 14 - right-hand column, line 21; page 290, left-hand column, line 31 - right-hand column, line 16; page 291, left-hand column, line 9 - right-hand column, line 11; figures 2,8 * - - - -	1,3	H 03 H 17/04
A	IDEM - - - -	2,4,7	
Y	IEEE 32ND INTERNATIONAL SOLID-STATE CIRCUITS CONFERENCE, vol. 28, 13th February 1985, pages 80-81,313, Coral Gables, Florida, US, session VII: "Data converters"; M.W. HAUSER et al.: "MOS ADC-filter combination that does not require precision analog components" * Page 80, right-hand column, line 42 - page 81, left-hand column, line 7; figure 4 * - - - -	1,3	
A	IDEM - - - -	4,5	
A	FR-A-2 532 504 (RCA CORP.)(31-08-1983) * Abstract; page 3, lines 10-30; page 7, line 20 - page 8, line 33; figures 1,3 * - - - - -	1,2,4,7,8	TECHNICAL FIELDS SEARCHED (Int. Cl.5)  H 03 H H 04 N
The present search report has been drawn up for all claims			
Place of search  The Hague		Date of completion of search  22 November 90	Examiner  WRIGHT J.P.
<div>CATEGORY OF CITED DOCUMENTS</div> <div>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention</div> <div>E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons ----- &amp;: member of the same patent family, corresponding document</div>			